

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

SUPPLEMENTARY PAGE

International File No. PCT/EP03/05095

Re. Section V

Substantiated Determination Pursuant to Article 35(2), With Respect to Novelty, Inventive Step, and Industrial Applicability; Documents and Explanations in Support of this Determination

1. Most Proximate Related Art

Document D1 US-A-6 115 664 (CULLEN), which is considered the most proximate related art, discloses: *A method for determining the exhaust-gas recirculation quantity for a combustion engine having exhaust-gas recirculation, comprising the following steps:*

- *Predetermination of a basic quantity of a mixture inducted into the engine combustion chamber(s) (cf. column 3, lines 47 to 57), as well as a basic pressure (cf. column 2, lines 38 to 42), and/or a basic temperature (cf. column 3, lines 1 to 5) of the gas mixture for at least one predefinable basic state of the combustion engine at deactivated exhaust-gas recirculation (cf. column 4, lines 10 to 12);*

and: Determination of a fresh-gas portion of the inducted gas mixture for the particular current engine state; and determination of the current exhaust-gas recirculation quantity on the basis of the difference between the ascertained

currently inducted gas-mixture quantity and the ascertained current fresh-gas portion (cf. column 6, lines 41 to 54).

2. Difference

Ascertainment of pressure and/or temperature of the inducted gas mixture for a particular current engine state at activated exhaust-gas recirculation and determination of the currently inducted gas-mixture quantity (M_{Engine}) as the basic quantity, corrected at least by the ratio of currently ascertained pressure to basic pressure of the gas mixture and/or the ratio of basic temperature to currently ascertained temperature of the gas mixture is not described in **D1**. Thus, the requirements of Art. 33(2) PCT are met.

3. Problem

It is difficult to calculate the relative current values of fresh air and recirculated gas. The use of the ratio of pressure and/or

temperature provides an elegant solution for this problem.

4. Inventive Activity:

There is **no indication** in the cited literature to calculate the current values of the portions of fresh air and recirculated gas on the basis of the ratio of pressure and/or temperature. Thus, the requirements of Art. 33(3) PCT are met.

5. Dependent Claims

Claims 2 to 6 are dependent claims and relate to further developments of the subject matter of Claim 1.

6. Commercial Applicability

This Application relates to the field of automotive technology which is obviously industrially applicable.

7. Comment

While **Claim 1** is formulated in the two-part form, the features cited above have incorrectly been stated in the characterizing

part, since they were described in document **D1** in combination with the features named in the preamble (Rule 6.3 b) PCT).